

MDW ACCIDENT PREVENTION PLAN HANDBOOK

SPORTS/RECREATIONAL SAFETY

Safety Training Goal: Understand the causes of sports/recreational injuries and how to prevent them.

1. Introduction.

a. Sports and recreation are an integral part of the American way of life. They provide a basic process through which the Army can help build and maintain an effective fighting force.

b. For many years, the Army has recognized the value of sports and recreational activities in improving morale. By providing service members with recreational opportunities equivalent to those in civilian life, the Army can maintain the high level of troop morale essential for efficiency.

c. However, a considerable amount of work time is lost by military and civilian personnel from personal injuries received in various athletic and recreational activities during both on- and off-duty hours. Sports and recreational accidents rank second only to privately owned vehicle motor accidents as a major cause of accidental injury to soldiers.

2. Discussion.

a. Sports and recreational activities can be classified as either team activities or individual activities, which can then be further classified separately as supervised and unsupervised.

(1) Supervised Sports.

(a) Football, including touch football, has the highest percentage of disabling injuries among supervised team sports, which is primarily due to lack of protective clothing or equipment; poor conditioning of participants; and inadequate ability of participants.

(b) Although statistics show only a few disabling injuries in supervised individual sports, some of these activities are potentially dangerous and can result in severe injury or death. Boxing is an example.

(2) Unsupervised Sports.

(a) In unsupervised team sports, basketball leads as the primary cause of disabling injuries.

(b) Swimming, boating, skindiving, sports parachuting, and hunting have the highest fatal injury potential among individual unsupervised sports. Snow and ice sports are also contributors to this category.

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b. Accident Causes.

(1) Not all sports and recreational accidents are preventable. Because of physical contact, it simply is not possible to prevent all injuries and still maintain the character and value of the activity. However, most accidents have many common causes, which should be viewed in terms of errors at the operating level, i.e., supervision, and in the contributing safety program.

(2) Since many factors contribute to the cause of an accident, a good accident prevention program will be directed at the control of the sources, such as remedial measures directed at supervisory problems.

c. Injury First-Aid Treatment. In the event of a sports injury, promptly apply the only first-aid treatment that is safe for an injury without professional advice. An easy way to remember the steps is in the use of an acronym...ICE (I for Ice, C for Compression, and E for Elevation).

(1) Ice. Chills the bruised area, causing blood vessels to contract and reduce circulation to the injured area, quite the opposite of what heat does. Never apply heat unless it is ordered by a physician.

(2) Compression. Applying pressure with an elastic bandage inhibits the accumulation of blood and fluids in the area, lessening pain and damaging swelling that occurs.

(3) Elevation. Elevating the injury decreases fluid accumulation in the injured area, puts the area at rest and helps reduce painful muscle spasms.

(4) The ICE treatment is easy to apply and provide for games. Plastic bags, crushed ice in a cooler, and wet 4" elastic bandages will be needed to be on hand.

(5) To administer ICE:

(a) Remove any part of the uniform that surrounds the injured area and elevate the limb above the level of the heart.

(b) Apply one layer of the cold, wet elastic on the skin directly over the injury.

(c) Put the plastic bag of ice on the bandage.

(d) Firmly wrap the remainder of the bandage around the bag of ice.

(e) Keep the ice and the compression wrap on the

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elevated immobilized injury for 25 to 30 minutes.

(6) As long as there is pain and/or swelling, keep the injury elevated. Avoid standing or walking on a painful leg or ankle or using an arm or wrist.

(7) The ICE treatment can be applied 4 to 5 times a day for 25 to 30 minutes for a few days following an injury. If pain or swelling persists, a physician should be seen.

d. Injuries can sometimes be made worse if certain steps are not taken. Some things NOT to do if injured in a sport include:

(1) Do not try to hide an injury, leave the practice or the game immediately.

(2) DO not apply treatment, other than the ICE treatment until a specific diagnosis has been made by a trainer or a doctor.

(3) Don't apply heat, unless ordered by a doctor.

(4) Don't use an injured part if it hurts, more hurting means more injury.

(5) Don't take drugs unless they are prescribed by a physician.

(6) Don't tape or splint an injured part, without specific instructions from a doctor.

(7) Don't go back to a practice or competition until you have a full range of motion, full strength and full function of the injured part.

e. Accident Prevention.

(1) Unified Approach. The most effective means of preventing sports and recreational accidents is through the coordinated, unified effort of all involved Army agencies, units, and individuals. The success of the accident prevention effort depends on the degree to which the following steps are carried out in establishing a program.

(a) Organization.

(b) Select and train an adequate number of personnel to accomplish the task.

(c) Identify specific accident problems and determine the causes.

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(d) Develop and implement corrective measures to prevent recurrences.

(e) Constantly reevaluate and update the program.

(2) Command Leadership. Commanders must be sure that appropriate safety provisions are included in all directives, standing operating procedures, and training doctrine. They must insist that all supervisors of sports and recreational activities under their jurisdiction coordinate their procedures with other activities and units. This is necessary to ensure a sports and recreational safety program for the total installation.

c. Safe Facilities and Equipment. Safe facilities and equipment are important to safe sports and recreational activities. Planning for these should begin as soon as it is determined that a certain sport or recreational activity will be conducted on the installation.

(1) Facilities.

(2) Equipment.

3. Conclusion.

a. Personnel who normally do not engage in strenuous athletic or recreational activities should realize that they are more susceptible to injuries than those who engage in strenuous daily training.

b. Everyone should use good judgement in choosing which contact sports to participate in and to what degree. Individuals should always use proper protective equipment to ward off unnecessary cuts, bruises, sprains, and broken bones.

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Safety Fact Sheet BASEBALL & SOFTBALL

Baseball, like all sports, presents its players with a potential for accidents and injuries. Hundreds of thousands athletes sustain injuries involving baseball each year with unsafe acts accounting for 80% of all the baseball accidents.

Softball is not as strenuous or demanding as baseball. It differs slightly from baseball in that the field is smaller, the ball is larger, the game lasts only seven innings, pitching is underhand, and players are not allowed to steal runs. However, the types of injuries, causes, and preventive measures are the same as baseball.

Baseball and softball injuries can often be prevented. In order to minimize risks, the following precautions should be taken.

Adhere to the following safety guidelines to avoid accidents and injuries on the baseball field:

BEFORE TAKING THE FIELD

Assign responsibilities.

- For keeping loose equipment off the field.
- For retrieving foul balls.
- Stress the importance of being watching the batter on each pitch. Alertness will prevent injuries that occur as inattention or distraction.

Inspect and correct/repair.

- The field for holes, ditches, uneven areas, and foreign objects such as equipment, stones, lumber, glass, etc.
- Playing and protective equipment.
- Establish standard procedures.
- Don't allow players to wear watches, rings, pins. and other metal jewelry.
- Encourage players who wear eyeglasses to wear safety glasses.
- Don't practice or play under adverse weather conditions or the threat of adverse weather conditions such as tornadoes, hail, and thunder or lightning storms.

Prepare for medical treatment.

- Arrange for emergency medical service before games and practices.
- Ensure that managers, coaches, and officials are trained in first aid.
- Keep a first aid kit available that includes bandages, medication, clean water, soap, towels, a blanket, limb splints, a list of emergency phone numbers, and coins to make phone calls.

ON THE FIELD

Collisions result in more injuries than any other accident. Minimize collisions by establishing zones of defense for all field positions.

Avoid the dangers of sliding:

- Don't strap down bases during sliding practice.

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- Teach sliding in long grass rather than sand.
- Have younger players wear tennis shoes while sliding to pose less of a threat to defensive players.
- Instruct players to slide head-first only when returning to base.

Protect batters from wild pitches, which account for a major portion of baseball accidents:

- Have them wear an approved helmet that fits well.
- Develop batter's ability to evade wild pitches.
- Prohibit poor sportsmanship by spectators and opposing team members, which can rattle pitchers and cause them to lose control.

Avoid the potential for danger that exists when batters drop their bats while running to first base:

- Have players drop bats in a designated area near where they begin running for base.
- Call players "out" if they fail to drop bat in designated area.
- Provide bats with non-slip grips.
- Protect catchers. They are involved in more action than any other player and, therefore, are most susceptible to accidents and injuries:
- Require them to wear helmets with face masks, chest pads, plastic cup supporters, knee and shin pads, and mitts.
- Teach them to protect their ungloved hand by keeping it relaxed and in the correct position.
- Teach them to keep a safe distance from a swinging bat.

Baseball and softball are activities for everyone that gives the player the opportunity to increase his/her 4 S's - speed, skill, strength, and stamina. But whether the game is baseball or softball, it has to be played SAFE!

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Safety Fact Sheet BASKETBALL

Basketball features tall athletes who sprint, twist, and pass. But their most amazing feat is leaping. Soaring through the air, drifting toward the basket, palming an orange ball, they defy gravity. They have to come down, though. And when they do, their body absorbs the shock. A shock that equals 4.5 times their body weight. That impact is one of the primary reasons for basketball injury.

The game can be an impromptu one in the driveway shooting the hoop over the garage door or a championship game. Whichever type of game, safety shouldn't be left on the sidelines with the water bottle, and precautions must be taken to keep players safe.

INJURY

Types.

- Bruises, cuts, abrasions.
- Strains, sprains, dislocations: happens to knees and ankles from sudden twists, turns, and stops and awkward landings. Happens to fingers from ball handling.
- Mallet fingers occurs when the ball strikes the fingers.

Produces pain and swelling.

- Achilles tendonitis can be prevented by flexibility exercises for lower legs.

Causes.

- Collision with other players.
- Slipping or falling.
- Twisting ankles or knees.
- Unnecessary roughness.
- Poor physical condition.
- Improper equipment.
- Improper playing techniques.
- Pressure on legs from running, jumping, starting, and stopping on hard floors.
- Jolting and pounding from landing after jumping or rebounding.
- No one shoe can protect foot from the stress from dozens of different basketball movements.
- Impact with other bodies while ball handling, setting picks, or rebounding.
- Contorting body to pass and avoid defenders.

THE GAME

Requirements.

- Requires agility, quickness, coordination, jumping ability, endurance, stamina, speed, balance, timing, desire, and confidence.

Equipment.

- Shoes must fit well, be designed for basketball, absorb shock under the heel and arch, be ventilated, and have a non-slip sole.
- Wear a thin pair of socks under athletic socks to prevent blisters. Painting feet with tincture and covering with powder

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will also help prevent blisters.

- Wear protective sports glasses.
- Wear knee pads to prevent floor burns and bone bruises.
- Wear knee braces on weak knees and tape weak ankles for support.

TRAINING

Conditioning.

- Conditioning prevents fatigue, which causes injury.
- Endurance allows players to maintain the pace.
- Pivoting and sudden starts require hip, knee, and ankle flexibility.
- Passing, dribbling, and shooting require wrist and finger strength and flexibility.
- Jumping requires leg strength.
- Rebounding requires leg and upper body strength.
- Strength can be increased by push-ups, pullups, half-squats, squat thrusts, step-ups, and calf raises.
- Endurance can be increased by running, sprinting, ropework, and circuit training.
- Flexibility can be increased by stretch, twist, and roll e exercises.

Basketball is a fast and furious game. Whether it's playing in the driveway on a Saturday or Sunday afternoon, in the gym during the lunch hour, or any other time, it requires that you take time to get your body and equipment ready to have a SAFE and fun game.

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Safety Fact Sheet FOOTBALL

Touch and flag football allows participants to enjoy the sport of football, but removes much of the pain and collision associated with the sport. Touch football also removes much of the equipment requirements, as well.

Despite the absence of tackling, touch football is not free of injury. An estimated 127,000 Americans are treated in emergency for football-related injuries, which numbers include touch football injuries.

THE GAME

Description.

- Strength, speed, and acceleration are required.
- Running stamina is important due to the duration of the game.
- The primary running requirement is for short sprints of explosive speed.
- Heart and lung endurance is required.
- Ankle, knee, thigh, trunk, shoulder, and neck strength is required.
- Leg, back, shoulder, and chest flexibility is required.

Equipment.

- If you wear glasses, use safety glasses with the hinge and bridge areas taped or padded.
- Wear non-restrictive clothing.
- Tape weak joints.
- Wear shoes that fit well.

Training.

- Endurance allows players to perform longer with less fatigue.
- Strength improves speed, power, acceleration, and agility.
- Alternate sports: running, jogging, bicycling, swimming, tennis, racquetball, basketball.
- Warm up: jog in place and conduct stretching exercises until sweating begins.
- Strength: push-ups, pull-ups, half-squats, leg raises, step-ups, calf raises. Weight training for legs, back, shoulders, neck.
- Endurance: running (especially sprints), swimming, jumping rope.
- Flexibility: stretching, twisting, and rolling exercises.

INJURIES

Types.

- Bruises, cuts, and abrasions are common on upper legs, fingers, hands, and arms. They occur to fingers by not catching the ball cleanly or contact with other players. Falling injures knees, fingers, wrists, elbows, and shoulders. Players should learn how to fall correctly. Falling techniques are taught in judo, karate, and wrestling.
- Ankles, knees, and hamstrings and sprained from quick twists slick or rough playing surfaces. Conditioning thigh muscles (front and taping ankles can prevent some of these injuries.

Causes.

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- Informal nature of game.
- Wide range of ability, experience, and training of players.
- Players not warming up or in good condition.
- Collisions, falls, elbowing.
- Lack of protective equipment.
- Less than ideal playing areas.
- Informal rules that are subject to change.

Prevention.

- Warm up and be in good condition.
- Avoid collisions--run around players.
- Know how to fall.
- Establish safety rules.

SAFETY RULES

Blocking.

- Blocking can only be accomplished by screening.
- At the line of scrimmage, the offensive player maintains a position between a defensive player and the ball.
- The offensive player may contact the defensive player, but no pushing, hitting, or striking.
- The defensive player must go around the offensive player.
- The defensive player may push a blocker aside, but cannot push directly back.

Ball Carrying.

- The ball carrier may not run over a defensive player.
- The ball carrier must run around the defensive player.
- The ball carrier may not stiff arm a defensive player.

Interference.

- Offensive players may not push or pull defensive players to elude them.
- No player on a kicking team may prevent a player on the receiving team from moving toward or catching the ball.

Since the action that most often leads to injury in touch football is collision with an opponent or teammate, the player should anticipate the probable action of others around him/her and be prepared to move out of the way or know how to cushion unavoidable body contact. Rules concerning blocking should be strictly enforced by officials.

To prevent falls and the injuries resulting from falls, a player should know the basic principles involved in falling without sustaining an injury. The player should understand the relationship of the center of gravity to body control, how to establish a wide base of support, and how to spread the impact of a fall over a large surface of the body. Players also need to know how to use their joints flexibly and how to relax and roll as they fall.

Since a high percentage of injuries occurs to the head and face, the use of properly fitted headgear, face guards, and mouthpieces should reduce the frequency and severity of injuries to these areas. Also the use of elbow guards may cut down on cuts and bruises, save teeth, and help protect a player as he/she falls.

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Touch football can be a relatively safe activity, only when it is played in a careless manner that makes contact more than "touching", it is time to sit on the bench.

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Safety Fact Sheet JOGGING

Jogging is one of the cheapest and most efficient ways for people to achieve and maintain physical fitness. Runners need to recognize potential dangers. The first danger is not recognizing personal capabilities and limitations. The second danger is from outside elements, either other people or vehicles.

The following provides the most frequent cause of accidents that occur during jogging and actions everyone can use to reduce the potential injury.

PERSONAL CAPABILITIES

Exercise can be dangerous to people with hidden health problems.

- If you are over 30 years old, overweight, or have a history of health problems, consult a doctor before starting an exercise program.
- If you are over 40, take a "stress test" which monitors your heart while exercising.
- Begin your exercise program slowly and progress gradually.

DANGERS FROM OTHERS

Protect yourself from attack.

- Run with others.
- Run with a dog.
- Wear identification.
- Don't run near doorways or in alleys.
- Don't run in isolated areas.
- Stay away from trails that skirt heavy vegetation.
- Know your route.
- Run when others will be running.
- Avoid running at night.
- Vary your running schedule.
- Take a self-defense course.
- Run defensively and be alert.
- Let someone know where you're running and when you'll finish.

FLUIDS

- A 140- to 160-pound man sweats about 1.5 to 2 quarts per hour while running.
- Drink 12 to 20 ounces of water 10 to 20 minutes before running.
- Drink six to eight ounces of water every two miles.
- Drink at least 20 ounces of water after running.
- Your body loses two to four pounds of fluid before you feel thirsty.
- Drink cool or cold water, which is absorbed faster than warmer water.

WHEN TO EXERCISE

Heat, humidity, meals.

- Dr. Joe Alter, a Texas physician, suggests the "Rule of 150"--if the temperature (in Fahrenheit) plus the relative humidity

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equals 150, don't run.

- If the total is in the 130's or 140's, reduce your normal pace and distance by 30%.
- Wait two hours after eating before running.

RUNNING EQUIPMENT

Shoes.

- They must be sturdy and fit properly.
- Training shoes with heavy, cushioned soles and arch supports are better than flimsy sneakers or light racing flats.

Stay cool.

- Reflect the sun off your body and provide ventilation. Wear light- or bright-colored, loose-fitting clothing.

Stay warm.

- If the weather's cold, it's better to wear several layers of light clothing than one or two heavy layers.

At night.

- Wear white or light-colored clothing.
- Wear reflective materials, such as a reflective vest.

WARMING UP

Walking.

- Walk briskly or jog slowly for five to ten minutes to warm up your muscles. Your muscles should be warm before stretching.

Stretching.

- Jogging causes muscles to shorten and tighten.
- Stretching helps prevent injuries by decreasing muscle tension.
- Stretch posterior muscles--the lower back, hamstrings, and calves.
- Stretch slowly until feeling tightness in the muscle (stop before you feel pain).
- Hold each stretch for 10 seconds to relax the muscle.

OVEREXERTION

Overheating.

- Stop running if you become overheated.
- A person can collapse in less than five minutes after the first symptoms of heat stress.

Indicators.

- Heat cramps.
- Heat exhaustion: symptoms include headaches, cold, clammy skin, dizziness, nausea, and disorientation.
- Heat stroke: symptoms include hot, dry, flushed skin because sweating has stopped, a rapid pulse, incoherent speech, delirium, or unconsciousness.

Procedures.

- Heat cramps: stop running, walk.
- Heat exhaustion: rest in a shaded area, and drink cold
- Heat stroke is a medical emergency. Rapidly cool the runner by dousing with water. Call for medical help.

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INJURY PREVENTION

Don't overwork your body.

- Chronic soreness, cold symptoms, and continual fatigue indicate strain.
- Slow down and rest when ill.
- Alternate heavy and light training days.

Stretch muscles adequately.

Run with proper shoes.

Reduce stress on legs and feet

- Make sure your running style has a proper foot strike.
- If you have a structural problem that affects your stride, consult a sport physician.

Safe jogging depends on establishing personal guidelines and goals. While striving for increased fitness and health, joggers can't ignore signals from their bodies. They must also apply common sense to their training programs to avoid attack and other hazards. Improving the quality of life should not endanger life.

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Safety Fact Sheet SOCCER

Soccer is the most popular sport in the world. It's the national sport of nearly every country in Europe, South America, Asia, and Africa. It is a bodily contact sport played with little or no equipment. Colorful jerseys are worn to distinguish between teammates. In hot weather, shirts should have short sleeves and be loose to allow ventilation. The same color stockings also help to define, as some players react quickly noticing the stocking color rather than looking up at the jersey. Shoes are the most important item of soccer equipment. They provide traction, stability, and support while running, turning, jumping, and stopping.

A soccer game is characterized by speed, grace, and skill. Players sprint, kick, and leap. Unfortunately, some players also get hurt. In fact, approximately 40,000 Americans are treated in emergency rooms each year for injuries related to soccer.

The major cause of injury is a lack of physical fitness due to poor or inadequate conditioning. Proper conditioning, training, and precautions can prevent many soccer injuries.

THE EQUIPMENT

Shirt.

- In hot weather, shirts should have short sleeves.
- They should be light-colored to reflect heat and loose to allow ventilation.

Shoes.

- Shoes are the most important item of equipment.
- They provide traction, stability, and support while running, turning, jumping, and stopping.

Pads.

- Players should wear shin pads.
- Description: sharp pain in the side of interfere with movement or ball control.
- Goalkeepers should wear knee and elbow pads.

THE SPORT

Training.

- Soccer requires endurance, speed, strength, flexibility, and ability.
- Training must develop all those areas.
- Besides physical conditioning, training should instill a attitude to abide by game rules, which enhance safety.

Playing.

- Players should concentrate on playing the ball, rather than the opponent.
- They should emphasize skill, not intimidation.
- Attempting to strike or kick an opponent is penalized.
- An overly fatigued player is susceptible to injury.

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THE INJURIES

Abrasions.

- Cause: sliding.
- Treatment: wash with soap and water. Expose it to air.
- If infection starts, treat with an antiseptic.

Lacerations.

- Cause: skin being broken by contact with a head, elbow, or shoe.
- Treatment: seek medical attention to suture wound.

Bruises.

- Causes: collisions, kicks, elbows.
- They must fit properly.
- Treatment: ice and rest.
- Treatment: breathe as deeply as possible.

Cramps.

- Description: involuntary contraction in muscle.
- Causes: fatigue, improper diet, dehydration, lack of salt, playing without warming up, or a sharp blow.
- Treatment: stop and stretch muscle. If caused by a blow, apply ice and stretch it. If not caused by a blow, apply heat and massage it.

Sprains.

- Causes: studs banging in grass while turning, stepping in a depression, landing incorrectly, or stepping on a ball or foot.
- Treatment: ice, immobilization, compression with elastic bandage, elevation. Get medical attention for further treatment.

Dislocations.

- Description: when a bone is separated from its connection.
- Causes: hard blow or fall.
- Treatment: immobilize injury. Get prompt medical attention.

Heat exhaustion.

- Description: most common heat-related injury.
- Causes: dehydration and/or salt depletion.
- Symptoms: fainting; weakness; dilated pupils; heat cramps; and moist, clammy, pale, or ash gray skin.
- Treatment: lie down in cool place, rest, drink cold liquids.

Heat stroke.

- Description: life-threatening condition.
- Causes: high body temperature and dehydration and/or salt depletion.
- Symptoms: dizziness; weakness; confusion; euphoria; high body temperature; strong and rapid pulse; and hot, dry, flushed, or red skin.
- Treatment: immediately transport to a hospital. While enroute, remove clothing, position in cool place, lower body temperature by immersing in ice bath or rubbing ice on body, give cold drinks if conscious.

A soccer match is an intense, graceful display of speed and

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skill. Participants pit their skill and competitiveness against the ball. Their bodies must be able to handle the battle against the black and white leather ball.

The game of soccer is fast and players are ready to score. But ensure they score safety first!

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Safety Fact Sheet Volleyball

Watching a volleyball game is almost hypnotic. Players bounce, dive, spin, roll, and spike. The entire court is a jumble of activity--everyone is darting, jumping, and twisting. It is a cooperative event; one team working in concert against another. And more often than not, teamwork brings victory, rather than individual skill.

Participants range from elementary children in gyms, to executives at company picnics, to family outings at the beach, to Olympic athletes. The game can be fun for all ages and skill levels, and is probably one of the safest team activities. However, age, physical condition, and competitive spirit of the individual often increases accidental injury possibilities. Additionally, injuries most likely occur when the participant attempts to extend him/herself beyond the limits of their conditioning or skills.

THE GAME

Description.

- Volleyball is played at a constant, fast pace requiring frequent jumps and bursts of speed.
- Strength and endurance are important to players.
- Setting, spiking jumping, and blocking are anaerobic.
- The continuous movement is aerobic.

Physical requirements.

- Leg power for jumping and arm power for spiking.
- Wrist, arm, shoulder, back, and leg strength.
- Flexibility and suppleness.
- Heart, lung and leg endurance.

Playing strategy.

- Use all three hits to set up a play.
- One hit stops the ball, the second sets it up, and the third spikes it over the net.
- The backcourt players should deliver the ball in a high, soft arc for the front players to spike.
- Spikers should position themselves a foot from the net, spring above the ball, and strike downward with the whole hand.
- On defense, anticipate spikes and move quickly to block them.
- Employ a variety of serves to keep the opposing team off-balance.

TRAINING

Development.

- Conditioning can prevent injury. Most injury occurs when players exceed their physical capabilities.
- The objective is to develop necessary strength, endurance, and flexibility.
- Handball, basketball, and swimming will condition volleyball players.

Exercises.

- Strength: push-ups, pull-ups, half-squats, bench jumps. Weight training for arms, wrists, shoulders, back, and upper legs.
- Endurance: sprinting, jogging, jumping rope, circuit training.

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- Flexibility: bending, stretching.

INJURIES

Bruises, cuts, abrasions.

- Description: most common injury.
- Cause: fall.

Blisters.

- Prevention: apply moleskin to areas susceptible to blisters, harden feet before season, wear shoes that fit well, place extra padding in shoes.

Leg cramps.

- Causes: poor conditioning, failing to warm up properly, heat, dehydration.
- Treatment: stop activity, massage, apply heat drink liquids.
- Prevention: drink often, warm up properly.

Sprains.

- Causes: Ankle--sudden twisting or landing on someone's foot.
- Treatment: ice, compression, elevation.

Knees.

- Description: wrenched knee or displaced cartilage.
- Causes: collision--usually an aggravation of old injury.
- Prevention: wear support, warm up.

Elbow, shoulder, and lower back.

- Causes: poor conditioning, not warming up, improper playing technique.
- Prevention: conditioning, warming up.

Fractures.

- Description: infrequent, occur to fingers or thumb.
- Causes: bad or awkward contact with ball.
- Prevention: proper technique, use forearm passing.

Volleyball is characterized by a court of bodies all leaping, twisting, and darting in concert. Those joining the fray must be in shape to accept the challenge and use proper playing techniques to prevent injury. With terrific setups, spikes that can never be returned, and serves that find a spot to hit their floor in, volleyball can be fun and exciting, but it also needs to be safe.

Swimming for Fun and Health

Swimming is one of the healthiest forms of exercise there is, since it yields aerobic benefits without sudden resistance or excess stresses on the body. It's by far the most popular sporting activity, outstripping even bicycling, bowling, fishing and baseball. However, the flip side of swimming's popularity is that drowning is the fourth leading cause of accidental death. Most people are familiar with the safety requirements of swimming, but, as a memory refresher, these basics bear repeating.



Water Safety for Everyone

With the right equipment and clear communication you can prevent tragedy around pools, at the beach, on a boat or any place swimming is allowed.

- Keep proper emergency equipment by your pool or in your boat at all times. This includes a 12-foot pole as well as a life ring or tube with a line attached to it. (However, don't rely on these devices for children, who tend to thrash about in panic if they don't know how to swim.)
- Never dive or swim in unfamiliar waters. Diving into water that's too shallow or swimming underwater in an unfamiliar area and hitting an obstacle are major causes of crippling head and spinal injuries.
- Use the "buddy system" when swimming or diving.
- If the water seems too cold, get out. Hypothermia (cold shock) can render even good swimmers unconscious in minutes.
- Always be sober when swimming and don't allow any intoxicated people near your pool. (More than half of all serious diving accidents happen when the diver is drinking.)
- Discourage horseplay in the water and encourage safe games, such as water basketball and water volleyball.
- Don't rely on an inflatable object to keep you afloat if you can't swim.
- Stay out of the water during thunderstorms and bad weather; and don't allow electrical appliances near a pool or spa unless they're protected by a ground fault circuit interrupter (GFCI).

Drown-Proofing Your Kids

Drowning is the second leading cause of accidental death in children under the age of 5. Most of these drowning deaths involve children who fall into unsupervised swimming pools. Once the following safety rules are put into practice, you'll breathe easier, and you and your kids should get along swimmingly.

- Keep your swimming pool fenced, and lock any access to it when you're not there. (Your local community may have additional ordinances.)
- Never turn your back on your child when near water.
- Insist that all children wear U.S. Coast Guard-approved personal flotation devices (PFDs, popularly known as life jackets) on boats, whether they can swim or not. Never substitute inner tubes, inflatable rafts or similar devices for life jackets. You can test a PFD's fit by lifting its shoulders while the child is wearing it. If the PFD fits right, the child's chin and ears will not slip through.
- As soon as he or she is old enough, have your child learn how to swim, but never allow children to swim alone, even if they're good swimmers.
- Kids shouldn't be allowed to swim if they're tired or ill or if there's a strong current.
- They should stay within any markers and, just like adults, should know the depth of the water before diving.

Rescuing Someone From Drowning

When someone stops breathing, brain damage can begin within three minutes. Thus, quick action can often save the life of a drowning person. If the shore is far away, breathing assistance should begin while the victim and rescuer are still in the water. If several people are available to help the victim, one can tow him or her toward shore while another gives rescue breathing assistance. It's not necessary to get water out of the lungs. The air the rescue-breather provides will go through any water that may be in the person's lungs. To swim with a drowning person, turn him or her face up in the water, put an arm across the chest and grasp the person under the arm. To learn more about water safety and basic life support, contact your local American Red Cross.

“He Could Swim—It Was Just Too Cold”

Joyce was in the bungalow cleaning up the baby after lunch when she got the call. Her husband Gene had been rushed to the resort's hospital emergency department. She was told he had almost drowned. “But Gene's such a good swimmer,” Joyce thought as she rushed with the baby to the hospital. She was met in the intensive care ward by a doctor and by their older son Phil. The doctor said, “Gene is

suffering from hypothermia. Some people call it exposure. Apparently he was swimming in the lake when he passed out. Luckily, your son was nearby. But I can't tell you yet if Gene will pull through or not. His temperature dropped to 89°, so low that he's in a coma. Most people can't lose that much body heat without some organ damage. We could barely detect a pulse when he was brought in. His circulation also slowed down so much that his brain was starved for oxygen, and he was in shock. We've taken emergency measures, but we'll just have to wait and see.”

Phil told his mother what had happened, “Dad rented a canoe for me at the lake. The rental place gave each of us a paddle, but dad just wanted to rest on the shore and watch. When I had paddled about 100 feet out, my paddle broke in two. I yelled to dad and held up the paddle handle. He then realized he still had the other paddle with him. Right away, without even taking off his shirt, he ran into the water with the paddle, past the “No Swimming” sign, and started swimming toward me. I know dad is a great swimmer so I couldn't believe how slow he was swimming.

In fact, he stopped twice and didn't say anything. After maybe three minutes he was about 6 feet from the canoe. He stopped again, looked at me like he was real scared, said my name and sank under the water. I yelled to the people on the shore and went in after him. Since I was wearing a life jacket I couldn't get below the water, but I was able to grab him by his collar and pull him up. His face was blue and he looked unconscious. Then I realized how cold the water was. It was like ice! I got into the canoe as quick as I could and had dad halfway into the canoe when the boat rental people got to us in their motorboat. They helped me get him all the way into the canoe and then towed us to shore. By the time we got there, someone had called an ambulance. They took us to the hospital, and I called you.”

As it turns out, after a week in the hospital, Gene pulled through and was able to go home. However, he'll think twice before charging into a cold body of water again. What would you have done differently if you had been in Gene's situation?



Hypothermia—What to Do About It

Hypothermia is a medical term for below-normal body temperature. Normal is about 98.6° F (37° C). Temperatures below 90° F (32° C) constitute severe, life-threatening hypothermia. The person can become drowsy or even unconscious. Other symptoms include weakness, slurred speech, shallow or slow breathing, trembling or stiffness on one side of the body or in a limb, confusion, erratic heartbeat and shock. Death can result from cardiac arrest or respiratory failure.

Hypothermia must be treated promptly by a medical professional. When you suspect someone is suffering from hypothermia, dial 911 or your local emergency medical service. While waiting for an ambulance, wrap the victim in something warm, covering the entire body except for the face. Lay the person down and avoid rubbing or massaging the victim's limbs. Keep the person still. (Exercise and increased blood circulation will rob the body's internal organs of warm blood where it's most needed.) If a victim of hypothermia is unconscious, the person may not show signs of life because hypothermia slows down vital signs to the point that only specialized medical equipment can detect them.

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Drowning and Panic

HOW YOU CAN HELP



A rescuer should always stay out of the water and avoid making physical contact with the victim if possible. Only senior-level swimmers and trained lifesavers should attempt to rescue someone. To get specialized training yourself, contact a local swimming club, community center, the American Red Cross or the YMCA or YWCA.

The scenario is all too common. A swimmer gets overwhelmed by waves, realizes he or she is in danger of drowning, gets another swimmer to come to the rescue but pulls the rescuer under as well. Both people often end up drowning. Those who panic in the water may get so desperate they may not even realize they're holding someone else under water. To avoid such a tragedy, follow these guidelines when trying to rescue a panicking swimmer.

Stay Clear of a Panicking Swimmer

If you can possibly rescue someone without going in the water yourself, try that first. Throw a life ring or extend a pole from shore, from a pier or from the side of a boat. If no flotation device, buoyant item or pole is available, guide your rowboat, canoe or raft to the drowning victim, taking care not to let your craft capsize when the person grabs on to it. If you do swim to the person and the person tries to grab you, switch immediately to a backstroke to stay out of reach. Bring a flotation device, such as a preserver ring, with you to offer to the panicking swimmer. From a safe distance, extend one side of the device. If nothing buoyant is available, throw one end of a towel, shirt or rope and tell the person to hold

onto the other end so you can tow the victim to shore. If the person uses the cloth or rope to pull him- or herself to you, let go of your end and swim clear of the person.

When You Have to Make Contact With the Victim

If you're a trained lifesaver, try to approach a panicking swimmer from behind. Pull his or her head close to yours with one hand around the chin, keeping the face upward and gripping the person's shoulder with your elbow. (In rough water, wrap your arm around the person's chest.) You may also have to use your other arm at first. Talk to the person to calm him or her down. Once you start moving, straighten out your towing arm, don't stop talking and make sure the person's face is always out of the water.

If a panicking swimmer grabs you, break free by pushing the person away with a free foot and your arms. If you are grasped from behind, grab the wrist of the person's uppermost arm and pull it down. At the same time, push the person's elbow up over your head with your other hand. If you can't break free, take a deep breath and try to swim downward until the person lets go. Resurface away from the panicking swimmer and, again, try to grab him or her from behind.

DROWN-PROOF YOUR FAMILY

Pool, Diving, And Swimming Safety

As the weather becomes warmer, reports of accidental drownings become all too common. Drowning victims encompass all age groups—the toddler who fell into the family pool, the teenager who dove into a lake and struck an unseen rock, the adult who was pulled out to sea by a vicious undertow. Perhaps the saddest fact about each of these cases, is that the drowning accident *could* have been prevented. Learn these basic rules for drown-proofing your family, before an accident becomes a tragedy.

Pool Safety

If you own a backyard pool, or live in an area where pools are common, enroll your children in swimming classes immediately. (Infants as young as a few months old can learn to swim their way to safety.) Invest in an approved safety cover and keep the pool covered whenever it is not in use. Fence in your pool to prevent curious youngsters from entering the pool area without your permission. *Never, ever*, allow toddlers or young children access to the pool without adult supervision. (Even if the pool has been drained, a young child can fall into the structure and injure himself seriously.)

Diving Safety

Many accidental drownings result from diving injuries. Diving into shallow water, or striking an unseen obstacle can lead to unconsciousness, spinal cord injury, and all too often, death. *Always* test water


depth before diving, and if you are unable to see below the water's surface, *don't dive*. Even if you are sure your path is clear, keep your arms extended above your head when diving—your hands (not your head) will hit an unseen obstacle first.

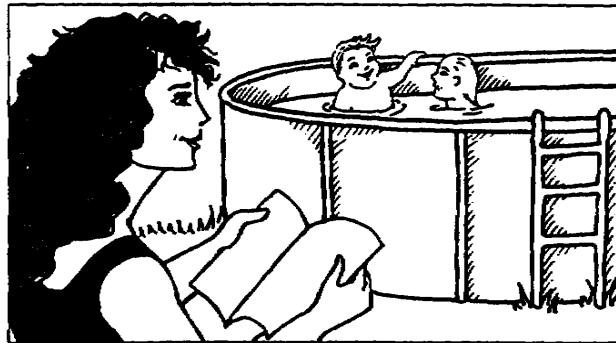
Swimming Safety

Whenever you swim (in a pool, lake, or ocean), always have a partner nearby. Observe warning signs—"No lifeguard on duty," "Dangerous undertow," etc. Never swim when you are tired, under the influence of alcohol, drugs, or medications, or when weather conditions are stormy. If you are not an experienced swimmer, stay in shallow water and use flotation

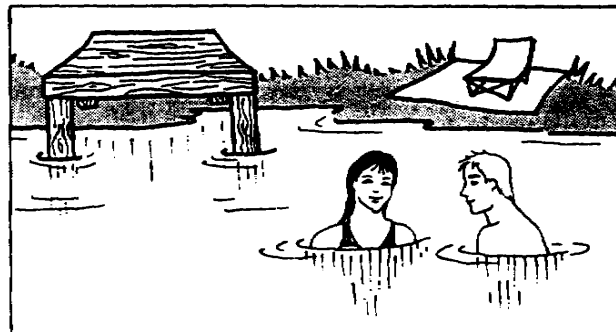
devices. Never allow toddlers or young children to swim without adult supervision.

Additional Tips

Certain water sports such as boating, water skiing, and surfing, pose special drowning dangers. If you are interested in taking up *any* water sport, learn how to swim beforehand. Know nautical rules and regulations before going on any boat. Always keep approved flotation devices readily available. Check your equipment before engaging in any water sport to be sure it is in good operating condition. Finally, use your common sense and avoid unnecessary risks. Drowning accidents are tragedies that can, in most cases, be prevented. 



Never, ever, allow toddlers or young children access to the pool without adult supervision.



Whenever you swim—in a pool, lake, or ocean—always have a partner nearby.

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HYPOTHERMIA

When a person gets so chilled that his or her body cannot warm up, it's called hypothermia. It's most common in cold temperatures, but some people (such as infants and the elderly) can suffer hypothermia when it's as warm as 70° F. Hypothermia can be fatal. But its risks can be avoided and its effects can be less serious if you take care and use first aid quickly.

Causes Of Hypothermia

People who are not prepared for a change in weather may not dress properly. They can be at risk in even relatively mild temperatures. In both winter and summer, hikers, iceskaters, swimmers, boaters, hunters, and others, are at risk for hypothermia. Water cools your body temperature 25-30 times faster than air, so falling into a 40° F lake can result in death within minutes. Even in the home, turning the heat down too low and not wearing enough clothing can be dangerous.



Your body can get dangerously cold even in moderate weather, especially if you are wet.

Symptoms And Stages

The body's temperature is usually about 98.6° F. As body temperature drops, symptoms go through stages. First, most people exercise or keep moving to stay warm. In this first stage, people may have a hard time doing things like lighting a match, tying a knot, or buttoning clothing. Next, speech becomes slurred. Victims may stumble, seem confused, or deny that they are cold or need medical attention. They may seem weak or tired. At this point shivering may stop. Breathing may be shallow and the pulse hard to find. As the body gets colder, muscles become stiff and the heartbeat becomes uneven. Unconsciousness sets in. Death can result if breathing or the heart stops.

Symptoms in the Elderly

The elderly may have additional symptoms such as difficulty walking. One side of the body may tremble, or movements may be stiff. Skin may look bloated, pale, or blotchy and pink.

First Aid Fast

Even if you only suspect hypothermia, call an ambulance or doctor right away. It may be a life-or-death call. Then, use first aid, which can save the victim's life. Bring the person into a warm place. If that's impossible, shelter from any wind, rain, or snow and keep the head covered. Remove all wet clothing and bundle with dry blankets or dress in dry clothing. Don't rub or massage the victim or place the



Shelter victim from wind, rain, and snow and keep the head covered.

victim in hot water. Give warm beverages (but no alcohol or caffeine) if the person is conscious. If the person is unconscious, use artificial respiration or CPR if you are trained in this life-saving technique.

Prevention Is Protection

Whenever you go outdoors, especially in cold weather, think about how to prevent exposure to the cold. Dress warmly, stay dry, and bring along extra dry clothes. Always have a buddy with you or let someone know where you'll be and when you expect to be back. Carry blankets, matches, first aid kit, and flashlight. If you are boating, wear a flotation device and layers of clothing. If you fall into cold water, huddle with others, or if you're alone, curl into a ball. People living alone should make an effort to speak to other persons every day, eat hot meals, wear enough clothing indoors, and keep their homes warm enough. State and local agencies can help weatherize homes for low income people.



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Boating Basics—Safety on the Water



To say boating is popular is an understatement. Not only do millions of people go boating for fun and relaxation, it's one of the United States' fastest growing recreational activities. Boating accidents are also on the rise, mostly due to a lack of training, preparation and safety sense.

Aye Aye, Sir!

If you plan to pilot a boat, take a boating safety class first, to learn the seagoing "rules of the road." You'll also learn safe load limits, what to do in an emergency and what equipment and supplies to have on hand at all times, such as a fire extinguisher.

Likewise, no serious boater should go on the water without learning to swim first. Water survival skills, especially in cold water, could save your life.

Once your training is complete and you're out on the water, don't overdo it. Heat, glare, noise, vibration, motion and the rhythmic pounding of waves can have a hypnotic effect on boaters. The resulting boating fatigue can dull your reaction time and lead to accidents.

Boating Accidents Don't "Just Happen"

Some of the major causes of boating accidents are overloading the boat, disregarding bad weather or small craft advisories, not looking out for other boats and obstacles, falling overboard, refueling unsafely and alcohol use. Boats have many fire risks, from gasoline leaking in the bilge to loose stoves or fuel tanks rolling close to a source of flame or a spark. Fumes from a half pint of gasoline have the explosive power of 15 sticks of dynamite. Follow fire safety and refueling safety procedures closely on a boat.

Alcohol Can Ruin a Boating Trip

Alcohol can compromise your balance, coordination, clear thinking, willingness to take risks, survival reflexes and underwater orientation. Never mix drinking alcohol with any water activities, including boating, swimming and diving. Avoid boating with people who are under the influence of alcohol.

Boating courses are offered by U.S. Power Squadrons, the U.S. Coast Guard Auxiliary, the American Red Cross, state boating agencies and private firms. Phone the Boat U.S. Foundation at 800-336-BOAT (2628) to find out what courses are available in your area.

Boating Basics

Life Jackets: Don't Leave Shore Without Them!

A life jacket, sometimes called a life preserver, but more correctly called a personal flotation device (PFD), is about the most important piece of safety equipment you can have on a boat. It's also been called the cheapest form of "insurance" you can buy. About 90 percent of boating-related deaths have resulted from drowning. What's more, most fatal boating accidents have happened to people using small boats in calm inland waters in good weather. Eighty percent of these deaths could have been avoided if the victims had been wearing PFDs.

Where PFDs Are Required

The U.S. Coast Guard requires boats to carry appropriate PFDs with a Coast Guard approval number. The regulations, which are detailed and specific, are available from any Coast Guard office and from state boating and waterways agencies. Some types of PFDs are designed to be worn all the time and are recommended specifically for nonswimmers and children.

Wearable PFDs must be "readily accessible," that is, easy to reach, with straps untied and not enclosed in a bag. Throwable PFDs must be "immediately available," that is, reachable in less than five seconds.

The Proper Care and Fit of Your PFD

If a PFD is damaged, it no longer meets legal requirements and should not be used. In fact, a punctured PFD that's supposed to be airtight can act more like an anchor than a flotation device. Test your PFD periodically in shallow water to see if it keeps you afloat. It should fit comfortably and snugly without being altered. An altered PFD, or one used for other purposes, may not save your life. Dry a PFD thoroughly before storing it in a dry, well-ventilated place, but don't use a heater to speed up the drying process, and don't store heavy items on top of it. Use only a child's PFD for a child, rather than trying to downsize an adult's PFD.



Types of Personal Flotation Devices

Type I, a "wearable life preserver" or "off-shore life jacket," has the greatest buoyancy and is the most effective in rough waters. It will turn most unconscious people face-up in the water. It's reversible and comes in only two sizes: child or adult. It's required to be available to passengers who pay to be on a boat.

Type II, a "wearable buoyant vest" or "near-shore life vest," is less buoyant than Type I and so is not suitable for rough waters. It will still turn many unconscious people face-up in the water. It usually is available in four sizes: adult, medium child and two small-child sizes.

Type III, a "wearable marine buoyant device" or "flotation aid," is less buoyant than Type II and is designed for specialized activities in calm water and daylight. It should be worn at all times

during the appropriate activity. Such activities include hunting, waterskiing, fishing, canoeing and kayaking. It will not turn an unconscious person face-up in the water. It also comes in another style called a "floatcoat," which, besides aiding flotation, protects against cold weather and impact injury.

Type IV, a "throwable ring buoy," "buoyant cushion" or "throwable device," is designed to be thrown to a conscious person who has fallen overboard. It must be grasped by that person until rescue. It's not recommended for nonswimmers or children. In fact, if worn on the back, it will turn a person face-down in the water. A Type IV is not suitable for rough or cold waters. It's required in addition to wearable PFDs on boats over 16 feet in length.

Type V, a "wearable special purpose

device" or "special use device," comes in two categories: general and hybrid. The general type is designed and approved only for specific activities, such as sailboarding or white water rafting. The label will say what activity a Type V PFD is approved for. However, if an approved Type V PFD also has the words "commercial use," it doesn't satisfy the requirements for recreational use. The hybrid variety has the same buoyancy as a Type I, II or III PFD, depending on the model used. However, it inflates automatically. It must be worn whenever a boat is unmoored and when a passenger is not in an enclosed space, such as the cabin. It's less bulky than other types of PFDs when deflated but must be inspected periodically to make sure it still works and has no holes.

Whether alone, in pairs or in groups—in calm lakes, fast-moving rivers, coastal surf or the open seas—canoeing and kayaking require paddling skills and attention to safety. Summer vacationers and tourists who rent a canoe or kayak without some preparation or experience are taking an unnecessary risk. Take courses offered by the American Canoe Association, the American Whitewater Affiliation or the American Red Cross or ask a local dealer about paddling clubs.

Essential Canoeing and Kayaking Skills

Everyone can benefit from observing some basic safety advice:

- Warm up and do some stretching exercises before plying the waters.
- You should always kneel in a canoe, including canoes with seats. This increases the craft's stability by lowering the center of gravity. A kayak should be fitted to the length of your legs.
- Flatwater skills are not applicable to river situations. If you're experienced only on a lake, you're not ready to venture down a river until you've completed some kind of basic river course.
- If you're boating in a certain body of water or section of a river for the first time, go with an experienced leader or walk the bank first. Look for hazards, such as rapids, waterfalls, fallen logs and areas of heavy boating traffic. Avoid exceptionally cold waters or cold weather, remote areas, dams and rising rivers. Never canoe or kayak on a flooded river and avoid unknown caverns you may see in the ocean surf.
- Learn the six classifications on the international scale of river difficulty and how the river you want to navigate fits into one of them. Also learn any known daily weather and tidal patterns.
- Any whitewater boating trip must be exhaustively planned in advance. Never take such a trip alone.
- If kayaking, learn the "Eskimo roll," a technique for rapidly rolling underwater and upright again in a 360° revolution. Among other benefits, it may help you avoid heat stress.

Recommended Equipment for Canoe or Kayak Trips

The law requires that you wear a personal flotation device (PFD) that's Coast Guard-approved and that fits properly. A flashlight is also required by law to signal approaching vessels at night. In cold weather or cold water, wear a wet or dry suit and a paddling jacket. Hypothermia (cold shock from sudden immersion in cold water) can render you unconscious in seconds. Since the safest position in a canoe is kneeling, knee pads will increase your comfort. Some canoes are also equipped with thigh straps for greater control. If your canoe does not have such straps, you can get them installed. A helmet is not essential for a canoe but is recommended in rough waters. However, a helmet is essential for kayaking, especially when performing Eskimo rolls. Other recommended items include an extra paddle, a radio, smoke flares, a first aid kit, an air horn, a map and compass, sunblock, a bailing container and sponge, a tow line, dry clothes and a thermosful of drinking water. Never wear hip boots while boating in deep water.

The Wet Exit

Although capsize accidents are often due more to inattentiveness than to rough waters, paddlers must learn how to easily exit a capsized boat. This is done near shore or in a swimming pool with a partner standing next to the boat. The paddler should practice this "wet exit" until it becomes routine. Recommended safety gear includes a helmet, nose clips and a PFD. If you're thrown from a boat in white-water rapids or a fast-flowing river, try to position yourself immediately so that you're floating on your back with your feet pointed downstream, feet together and toes up. Never try to stand up in fast water, unless it's too shallow for swimming.

Boating Basics



Canoes and Kayaks With Safety in Mind

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